

by the transponder; and

10	► A met	hod of controlling the operation of a vehicle with a radio
. Lar	/ · /	uit configured to communicate with a vehicle operator's handheld
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7 3/}	radio frequency trans	ponder, the method comprising the steps of:
' / 1	a.	providing the vehicle having the bi-directional radio
5	communications circuit;	
6	b.	providing the radio transponder to the vehicle operator;
7	c.	generating electromagnetic radiation from the radio
8	communications circ	uit;
9	d.	bringing the transponder within the range of the
10	electromagnetic radia	ation;
11	e.	energizing the transponder by the electromagnetic radiation;
12	transmitting first info	ormation from the transponder after the step of energizing the
13	transponder;	
14	f.	receiving at the reader circuit the first information transmitted

the first information received at the transponder.
2. The method of Claim 1, wherein the step of providing the radio
transponder includes the step of providing the radio transponder with a low-power

controlling at least one subsystem of the vehicle in response to

3 microcontroller configured to receive its operating power from the electromagnetic

4 radiation.

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- 1 3. The method of Claim 2, wherein the step of providing the radio 2 transponder includes the step of molding the radio transponder into a vehicle ignition 3 key.
- 1 4. The method of Claim 2, wherein the step of providing a radio 2 transponder includes the step of embedding the radio transponder in a hand-held card.

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1	5.	The method of Claim 4, wherein the step of providing a radio	
2	transponder in	ncludes the step of mechanically bonding the radio transponder to a	
3	vehicle ignition	on key.	
1	6.	The method of Claim 1, wherein the step of transmitting the first	
2	information in	ncludes the step of transmitting a digital value that identifies the	
3	operator.		
1	7.	The method of Claim 6, wherein the step of controlling at least one	
2	subsystem in	cludes the step of comparing the digital value that identifies the operator	
3	with a value p	previously stored in the vehicle's controller.	
1	8.	The method of Claim 7, wherein the step of controlling at least one	
2	subsystem of	the vehicle includes the step of disabling the operation of one or more of	
3	the following subsystems:		
4		a. a fuel pump of the vehicle;	
5		b. a hydraulic system of the vehicle;	
6		c. a starting system of the vehicle;	
7		d. an electrical system of the vehicle;	
8		e. a transmission of the vehicle; and	
9		f. an engine of the vehicle.	
1	9.	A method of controlling the operation of a vehicle in response to data	
2	received from	a radio transponder, the vehicle having a short-range radio transceiver	
3	configured to	selectively energize the transponder when it is in close proximity to an	
4	operator's sta	tion of the vehicle, the method including the steps of:	
5		a. storing data in the transponder indicative of the operator;	
6		b. bringing the transponder into close proximity of the operator's	
7	station of the	vehicle;	
8		c. generating by the vehicle of an electromagnetic field sufficient	
9	to energize th	ne transponder;	
10		d. downloading from the transponder to the vehicle the data	
11	indicative of	the operator;	

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12		e. comparing by the vehicle of the downloaded data indicative of
13	the operator v	with data previously stored in the vehicle; and
۱4		f. limiting the functionality of the vehicle based upon the step of
15	comparing.	
1	10.	The method of Claim 9, wherein the data indicative of the operator
2	includes data	indicative of the vehicle operational parameters.
1	11.	The method of Claim 10, wherein the operational parameters include a
2	distance trave	eled.
1	12.	The method of Claim 10, wherein the operational parameters include a
2	geographical	area in which the vehicle may be driven.
1	13.	The method of Claim 10, wherein the operational parameters includes
2	times of the d	lay during which operation is permitted.
1	14.	The method of Claim 10, wherein the perational parameters include
2	an elapsed tir	me of operation.
1	15.	The method of Claim 10, wherein the operational parameters include a
2	maximum en	gine load.
1	16.	The method of Claim 10, wherein the operational parameters include a
2	maximum sp	eed of the vehicle.
1	17.	A system for controlling the operation of a vehicle comprising:
2		a. a portable radio transponder including a microcontroller and an
3	digital memo	ry, wherein the digital memory includes data indicative of an operator of
4	a vehicle;	
5	;	b. a vehicle further comprising:
6		i. a transponder reader circuit configured to transmit
7		electromagnetic radiation sufficient to energize and
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8		enable the transponder to transmit the data at a	
9		transponder radio frequency; and	
10		ii. a control system configured to input the data from the	
11		transponder reader circuit and to control operation of	
12		the vehicle in response to the data.	
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1	18.	The system for controlling the operation of a vehicle of Claim 17,	
2	wherein the control system is configured to set a vehicle speed limit based upon the		
3	data received from the transponder.		
1	19.	The system for controlling the operation of a vehicle of Claim 17,	
2	wherein the co	ontrol system is configured to set a maximum engine RPM based upon	
3	the data receiv	ved from the transponder.	
1	20.	The system for controlling the operation of a vehicle of Claim 17,	
2	wherein the control system is configured to set a maximum engine load based upon		
3	the data receiv	ved from the transponder.	
1	21.	The system for controlling the operation of a vehicle of Claim 17,	
2	wherein the c	ontrol system is configured to disable the vehicle after a predetermined	
3	amount of time of operation based upon the data received from the transponder.		
1	22.	The system for controlling the operation of a vehicle of Claim 17,	
2	wherein the c	ontrol system is configured to disable the vehicle if it travels outside a	
3	predetermine	d geographical area of operation.	
1	23.	The system for controlling the operation of a vehicle wherein the	
2	control system	n is configured to prevent the operation of the vehicle outside of	
3	predetermine	d time intervals each day based upon the data received from the	
4	transponder.		
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